

Claims

[c1] We claim as our invention:

1. A golf club head comprising:

a body having a crown, a sole, and a front wall with an opening, the body composed of a non-metal material; a face component having a striking plate insert and a return portion extending inward, the return portion of the face component molded into the body, the striking plate insert covering the opening of the front wall of the body; and

wherein the golf club head has a coefficient of restitution of 0.80 to 0.94, and the golf club head has a volume ranging from 300 cubic centimeters to 600 cubic centimeters.

[c2] 2. The golf club head according to claim 1 wherein the face component is composed of a formed metal material.

[c3] 3. The golf club head according to claim 1 wherein the face component is composed of a material selected from the group consisting of a forged metal material, a formed metal material, a machined metal material and a cast metal material.

- [c4] 4. The golf club head according to claim 1 wherein the body has a mass ranging from 50 grams to 90 grams.
- [c5] 5. The golf club head according to claim 1 wherein the moment of inertia about an Izz axis of the golf club head is greater than 3000 grams– centimeter squared.
- [c6] 6. The golf club head according to claim 1 wherein the face component is composed of a material selected from the group consisting of titanium, titanium alloy, steel alloys and amorphous metals.
- [c7] 7. The golf club head according to claim 1 wherein the body is composed of a plurality of plies of pre–preg material.
- [c8] 8. A golf club head comprising:
a body having a crown, a sole, a front wall with an opening, the front wall having an upper edge and a lower edge defining a groove, the body composed of a plies of pre–preg material;
a face component having a striking plate and a return portion, the face component having a uniform thickness in the range of 0.040 inch to 0.250 inch, the face component composed of a metal material and having a mass ranging from 40 grams to 80 grams; and
wherein the return portion of the face component and

the upper edge and lower edge of the body form a sandwich structure having a thickness ranging from 6.0 mm to 20 mm;

wherein the golf club head has a coefficient of restitution of 0.80 to 0.94, and the golf club head has a volume ranging from 300 cubic centimeters to 600 cubic centimeters;

wherein the moment of inertia about the Izz axis through the center of gravity is greater than 3000 grams– centimeter squared, and the moment of inertia about the Iyy axis through the center of gravity is greater than 1900 grams– centimeter squared.

- [c9] 9. A golf club head comprising:
- a face component having a striking plate and a return portion, the return portion extending laterally and outwardly from a striking plate, the return portion having a plurality of openings, the face component composed of a metal material; and
 - a body composed of plies of pre-preg material and having an open portion in a front wall, the body having a first edge and a second edge, the face component attached to the front wall of the body and covering the open portion of the front wall, wherein the return portion of the face component is bonded by the first edge and the second edge of the body to form a sandwich struc-

ture;

wherein the golf club head has volume ranging from 300 cubic centimeters to 600 cubic centimeters.

- [c10] 10. A wood-type golf club head comprising:
a body composed of a non-metal material, the body having a front face wall with an opening , the body having a first edge and a second edge; and
a face component composed of a metal material, the face component having a striking plate and a return portion, the return portion extending laterally and outwardly from the striking plate, the return portion molded between the first edge and the second edge of the body to form a sandwich structure;
wherein the golf club head has a volume ranging from 300 cubic centimeters to 600 cubic centimeters.